



Summary of RCRA Showcase Pilots

The Resource Conservation and Recovery Act (RCRA) Showcase Pilots are part of the second round of RCRA Cleanup Reforms announced by the U.S. Environmental Protection Agency (EPA) in January 2001. The pilots are intended to illustrate innovative efforts in RCRA Corrective Action cleanups at facilities nationwide and stimulate others to explore similar efforts to speed up progress toward EPA's cleanup goals under the Government Performance and Results Act (GPRA). For more information, visit: <http://www.epa.gov/correctiveaction>.



EPA Regions	Facility/Location	Innovation Description	Innovation Type
1, 2, 3, 4, 5, 8	Various facilities across states/regions	Development of one standard Electronic Data Deliverable (EDD) for the submittal of data samples collected in a wide variety of environmental media. The EDD is expected to allow faster, more focused reviews by project managers than is currently possible with paper copies.	<ul style="list-style-type: none"> • Electronic Information Transfer/Documentation • Multi-state/regional
4, 5, 6, 7, 8	Nucor Steel Mini-mills Arkansas, Indiana, Nebraska, South Carolina, Texas, and Utah	Cleanup of steel mini-mills under a federal consent decree, which is the first comprehensive, multi-media settlement in the steel mini-mill industry. The cleanup will take place sequentially, in a prioritized, streamlined process and will be overseen by a coordinating committee.	<ul style="list-style-type: none"> • Sector-based • Multi-state/regional • Streamlined Administrative Process • Enhanced Stakeholder Involvement
1	Sporting Goods Properties, Inc. Bridgeport, Connecticut	First-time use of remote control equipment to investigate large caliber unexploded ordnance (UXO) on a property that will be remediated and redeveloped, with a portion being donated to the Town of Stratford for a road project. The remote control equipment was previously used to investigate a bomb field.	<ul style="list-style-type: none"> • Investigation Technology • Brownfields Redevelopment
1	Various facilities in Region 1	The Ten Most Wanted list is a compilation of the ten most common comments provided on RCRA Facility Investigation (RFI) work plans and reports. This "comment letter in advance" provides a tip sheet which minimizes generic flaws in work plans and other reports and thereby accelerates the Corrective Action process.	<ul style="list-style-type: none"> • Comment Letter in Advance
2	Jersey Plating Co. Morris County, New Jersey	Use of state non-RCRA cleanup program to provide financial assistance for assessment, investigation and remediation of the site. The facility does not appear to be financially viable or willing to perform Corrective Action work at the site, and federal financial assistance does not appear viable. The Town of Boonton wants to turn the site into a parking lot.	<ul style="list-style-type: none"> • State non-RCRA Cleanup Program • Brownfield Redevelopment
3	Genicom Waynesboro, Virginia	Use of a combination of innovative approaches (e.g., RCRA Prospective Purchaser Agreement ("PPA"), Comfort Letter) and traditional enforcement mechanisms to address both facility reuse and environmental concerns. The Genicom bankruptcy had the potential to lead to Genicom's abandonment of the facility, if unable to sell to a new owner.	<ul style="list-style-type: none"> • RCRA Prospective Purchaser Agreement/Comfort Letter • Brownfield Redevelopment
3	Former Lucent Richmond Works Henrico County, Virginia	Use of tree cores to define the groundwater plume and whether the Environmental Indicator is met for "Migration of Contaminated Groundwater Under Control." Plume delineation through tree core analysis is a potentially cost-effective and simple approach, and offers EPA an opportunity to test a new tool for site characterization.	<ul style="list-style-type: none"> • Site Characterization

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3	Region 3 and States	Integration of Region 3's existing Corrective Action website with each state's website in Region 3 to create a more comprehensive approach to public outreach and information access. Region 3's revamped website will highlight cleanup programs implemented by EPA and its state partners.	<ul style="list-style-type: none"> Website/Electronic Data Transfer/Documentation
3	US Steel-Fairless Works Fairless Hills, Pennsylvania	Formation of a team to coordinate expedited cleanup efforts with redevelopment goals, and to use the flexibilities in the RCRA Corrective Action Program and the Pennsylvania Act 2 Land Recycling Program.	<ul style="list-style-type: none"> Streamlined Process Early, Frequent, Informal Communication Brownfield Redevelopment
4	Atkemix Ten Inc. (formerly Stauffer Chemical) Louisville, Kentucky	Phased approach to site remediation allows the company to focus on meeting the Environmental Indicator goals, while going forward with final Corrective Action for the site and incorporating redevelopment objectives. The company can realize economic benefits and efficiencies with this approach.	<ul style="list-style-type: none"> Phased Approach Property Redevelopment
4	Gaston Copper Recycling Corporation Gaston, South Carolina	Formation of a core team to replace the traditional iterative process of exchanging papers and comments; development of an aggressive Corrective Action Schedule for investigation and remediation; and use of a site-wide geographical information system (GIS) which: (1) provides an electronic repository for quantitative and qualitative data, (2) provides a means to analyze site chemical data, and (3) serves as a communication tool for all stakeholders.	<ul style="list-style-type: none"> Early, Frequent, Informal Communication GIS/Electronic Information Transfer/Documentation Brownfield Redevelopment
4	Velsicol Chemical Corp. Memphis, Tennessee	Developed a volumetric assessment method to measure the effectiveness of a site-wide groundwater containment and recovery system in reducing contaminant concentrations and controlling contaminant migration. This is a low-cost and reliable means to quantitatively demonstrate plume stability for Environmental Indicator status (CA750). Groundwater monitoring data from three zones are annually assessed to demonstrate remedial performance and plume stability.	<ul style="list-style-type: none"> Plume Stability Assessment Method Facility-wide Approach
5	Arizona Chemical Co. (subsidiary of International Paper) Dover, Ohio	Low oversight approach for workplan completion, review and approval in order to reduce costs and speed remedy construction within the structure of a traditional 3008(h) order. Key aspects of the approach include dividing the remedy construction work into smaller, more manageable pieces and reducing the number of deliverables required.	<ul style="list-style-type: none"> Low Oversight

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5	Bridgestone/Firestone Noblesville, Indiana	Large-scale remedy is broken down into individual remedy components on separate project tracks. This approach allows for acceleration of certain parts of the remedy; stops delays of other projects while waiting for permits; allows for quicker Agency review and response time; balances the workload for both EPA and the facility; and avoids inefficiencies in implementation.	<ul style="list-style-type: none"> • Low Oversight
5	Chevron USA Hooven, Ohio	Early and frequent involvement of individuals and local and regional organizations in Corrective Action dialogue regarding the site, including redevelopment decision-making and participation in the Citizen Advisory Panel.	<ul style="list-style-type: none"> • Enhanced Public Involvement • Brownfield Redevelopment
5	Various RCRA, UST and CERCLA facilities in Ohio	USEPA and Ohio EPA partnership to access legal mechanisms, including equitable servitude and easements, that would be binding upon future property owners and require that they comply with the land use restrictions for properties subject to RCRA, UST, and CERCLA.	<ul style="list-style-type: none"> • Institutional Controls
6	Borden Chemicals and Plastics Geismar, Louisiana	Alternative approach to expedite traditional work plan approval process. The approach is based on improving communication between the company and the regulators. The goal of this approach is to clearly communicate the investigation and cleanup objectives up-front to minimize any uncertainty, and to consider flexible alternatives to accomplishing those objectives.	<ul style="list-style-type: none"> • Early, Frequent, Informal Communication
6	Corrective Action Strategy Virtual Office	The Corrective Action Virtual Office tracks progress at each facility; provides open communication between all parties involved, with access to all documents that would have otherwise been submitted as paper copies; and provides a means to measure and record program success.	<ul style="list-style-type: none"> • Electronic Information Transfer/ Documentation
6	Formosa Plastics Corporation Point Comfort, Texas	This is an EPA Region 6 Corrective Action Strategy (CAS) Pilot. Evaluation of previously collected data with risk-based performance standards to prioritize corrective action efforts; development and use of conceptual site models in risk management decisions with realistic evaluation of current and future site and resource use; site-wide approach in groundwater monitoring and management; and informal, frequent communication among regulators and facility.	<ul style="list-style-type: none"> • Risk-based Performance Standards/ Prioritization • Facility-wide Approach • Early, Frequent, Informal Communication

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6	Great Lakes Chemical Co. El Dorado, Arkansas	This is an EPA Region 6 Corrective Action Strategy (CAS) Pilot. Phased approach to remedy proposal; development of conceptual site model to develop performance standards and data objectives for site investigation; site-wide groundwater monitoring; risk-based priority screening for investigations and cleanup; realistic evaluation of current and future site and resource use; and frequent communication among regulators and facility.	<ul style="list-style-type: none"> • Phased Approach • Risk-based Performance Standards/Prioritization • Facility-wide Approach • Early, Frequent, Informal Communication
6	Koppers/Beazer North Little Rock, Arkansas	This is an EPA Region 6 Corrective Action Strategy (CAS) Pilot. Risk-based priority screening for investigations and cleanup; development of conceptual site models to develop performance standards and data quality objectives early in the process; innovative use of DNAPL recovery techniques with possible use of institutional controls for dissolved phase off-site; and frequent communication among regulators and facility.	<ul style="list-style-type: none"> • Risk-based Performance Standards/Prioritization • DNAPL Technology • Early, Frequent, Informal Communication
6	Lucent Technologies Oklahoma City, Oklahoma	This is an EPA Region 6 Corrective Action Strategy (CAS) Pilot. Development of conceptual site model to develop data quality objectives and performance standards, and to ensure realistic evaluation of current and future site and resource use; risk management strategy for prioritizing corrective action work and developing flexible performance standards for the owner/operator; streamlined administrative procedure using Letter of Agreement mechanism rather than a permit renewal; frequent, informal communication among regulators and facility; and phased remediation and remediation selection balanced between treatment, engineering controls and institutional controls.	<ul style="list-style-type: none"> • Risk-based Performance Standards/Prioritization • Letter of Agreement as Alternate Authority • Early, Frequent, Informal Communication • Facility-wide Approach • Phased Approach
6	Randolph Air Force Base San Antonio, Texas	Partnership between EPA Region 6, Texas Natural Resource Conservation Commission, Randolph Air Force Base, and the Air Force Center for Environmental Excellence to expedite the completion of RCRA corrective action activities at 23 Installation Restoration Program sites under the Texas Voluntary Cleanup Program.	<ul style="list-style-type: none"> • Federal Facilities Partnership • State non-RCRA Cleanup Program • Early, Frequent, Informal Communication

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6	Remington Arms Co. Lonoke, Arkansas	Use of: XRF screening technology for metals determination; ecological screening checklists to determine ecological receptors and habitats concerns up front; development of site conceptualization model to identify data gaps, develop site-specific performance standards, and establish data quality objectives; Letter of Agreement as an alternate authority; risk management strategy and performance standards; and development of a communications strategy.	<ul style="list-style-type: none"> • XRF Screening Technology • Ecological Screening Checklists • Risk-based Performance Standards/Prioritization • Letter of Agreement as Alternate Authority • Early, Frequent, Informal Communication • Facility-wide Approach • Phased Approach
7	Former Amoco Refinery Sugar Creek, Missouri	Phased approach to investigate the site; implementation of current and future remedial alternatives which blend with the goals of the Reuse Plan; and formation of the Amoco Focus Group.	<ul style="list-style-type: none"> • Phased Approach • Enhanced Stakeholder Involvement • Brownfields Redevelopment
8	Alliant TechSystems West Valley City, Utah	Development of an Access Database for managing corrective action activities. The database was developed using Microsoft Access 2000, and is linked to the Utah Department of Environmental Quality sampling database. The Access Database will allow the State to expedite and better manage the complex corrective action assessments, investigations, and closer data at the facility. The Solid Waste Management Unit (SWMU) Database will enable the State to maintain and review detailed historical and current information pertaining to SWMUs.	<ul style="list-style-type: none"> • Electronic Information Transfer/Documentation
8	Two adjacent refineries: -Conoco -Ultramar Diamond Shamrock Denver, Colorado	Water flood technology to enhance the removal of free phase hydrocarbons from both refineries. This technology has commonly been used in the deep petroleum reservoir extraction industry, but has not been used for remediation purposes in a shallow unconsolidated aquifer environment.	<ul style="list-style-type: none"> • NAPL Removal Technology

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8	Texaco Refinery (now closed) Casper, Wyoming	Evaluation of two different technologies at former refinery. The first is to employ the use of microwaves to enhance non-aqueous phase liquid (NAPL) removal, a truly innovative approach that has only been tried at a few small sites around the country and never in a shallow unconsolidated aquifer where the hydrocarbons range from C4 - C30. The second technology will most likely be some type of an in-situ thermal technology.	<ul style="list-style-type: none"> • NAPL Removal Technology
8	Wyoming Voluntary Remediation of Contaminated Sites (VRCS)	Development of a model Wyoming VRCS program. Wyoming's will be the second such Memorandum of Understanding that addresses RCRA permitted facilities (Michigan is the first.) Four chartered workgroups are working to develop rules, guidance and protocols for implementation of the new VRCS law.	<ul style="list-style-type: none"> • State non-RCRA Cleanup Program Enhanced Stakeholder Involvement
9	Romic Environmental Technologies Corp. East Palo Alto, California	In-situ bioremediation by injecting a carbohydrate solution (i.e., molasses and/or cheese whey), rather than synthetic compounds, into the shallow aquifer to enhance natural biological activity and consequently reduce the concentration of chlorinated volatile organic compounds (VOCs).	<ul style="list-style-type: none"> • In-situ Bioremediation Technology
10	Taylor Lumber & Treating, Inc. Sheridan, Yamhill County, Oregon	New approaches to RCRA-Superfund program integration to complete cleanup at a bankrupt facility, including: joint work to implement site characterization strategies; proposal of the site to the National Priorities List so the full range of Superfund authorities will be available when the facility does not have resources for cleanup; and involvement of the community in plans for cleanup and reuse of the site.	<ul style="list-style-type: none"> • RCRA-Superfund Program Integration re Bankrupt Facility Enhanced Stakeholder Involvement

